

Subject: Minutes: DSS-13 Weekly Meeting 11-09-09

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Minutes: DSS-13 Weekly Meeting on 11-09-09

Significant Event: Completed XKR X-band maser refurbishing work at CMF and installation and test at DSS-13 position # 4 (see attached picture below). The LNA noise temperature is about 4K for RCP and 5K for LCP. The system noise temperature of the maser system currently installed at DSS-13 is about 19.5K (atmosphere included, average of RCP and LCP channels).

I would like to thank Larry Schrader and his team for their outstanding support on the maser refurbishing work and delivery of an excellent performance product. Paul Dendrenos and GDSCC staff also did an outstanding job on installation and test of the maser and a large 5 hp compressor. A dual channel downconverter obtained from Marty Slade and frame & stand from Dan Kelly are also appreciated.

DSS-13 Science/Engineering Activities:

GAVRT: We had very busy days on GAVRT remote unattended operations during week#45 on DOYs 306, 307, 308, and 310. We have not seen or received any record showing problem of these activities. DSS-13 will be busy on supporting GAVRT remote operations this week and next week.

S-band Filter: Since we no longer have LCROSS spacecraft, the S-band GAVRT configuration has been re-configured by bypassing 10 MHz (2245-2255 MHz) filter and inserted a DSN band filter (2260-2300 MHz). The new configuration has much lower S-band RFI. Consequently, the new system noise temperature drops from 49K to about 40K.

Pointing Models: D. Rochblatt and DSS-13 staffs continue working on the installation and test of the new 4th order pointing model. This pointing model is for X-band position 2. The acquired data has a mean radial error (MRE) of about 22.4 mdeg. The 1st iteration of the data has the MRE of about 15.9 mdeg. The goal is to get about 7-9 mdeg full sky pointing error which may require 3-4 iterations.

XKR Maser Installation at Position 4: Task has been completed and signed off.

DSS-13 Power and UPS protection: We have not received the confirmation from Complex electricians on the date that they will come and swap loads from the current UPS to the new UPS.

DSS-13 Weather Station: The barometric pressure reading from the weather station is working now. L. Skjerve and G. Bury are monitoring its function for a few more weeks.



Watt

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